
The Role of Logistics in Practical Levelized Cost of Energy Reduction Implementation and Government Sponsored Cost Reduction Studies: Day and Night in Offshore Wind Operations and Maintenance Logistics

This paper reveals that logistics make up at least 17% of annual operational expenditure costs for offshore wind farms. Annual operational expenditure is found to vary by a factor of 9.5, making its share of levelized cost of energy for offshore wind range from 13% to 57%. These are key findings of a 20-month research project targeting cost reduction initiatives for offshore wind systems. The findings reveal that cost-out measures are difficult to implement due to cultural differences. Implementation efforts are rendered by personnel located offshore in a harsh sea environment which is in stark contrast to the shore-based office personnel who develop studies directing cost reduction efforts. This paper details the company motivation to join industry-wide cost reduction initiatives. A business case for offshore wind operations and maintenance logistics yielding 1% savings in levelized cost of energy is included on how to expand working hours from daytime to also work at night.

General information
Publication status: Published
Organisations: Department of Wind Energy, Meteorology & Remote Sensing, Aalborg University, Offshoreenergy.dk
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Number of pages: 28
Publication date: 2017
Peer-reviewed: Yes

Publication information
Journal: Energies
Volume: 10
Issue number: 4
Article number: 464
ISSN (Print): 1996-1073
Ratings:
BFI (2017): BFI-level 2
Scopus rating (2017): CiteScore 3.15 SJR 0.67 SNIP 1.346
Web of Science (2017): Impact factor 2.676
Web of Science (2017): Indexed yes
Original language: English
Electronic versions:
energies_10_00464.pdf
DOIs:
10.3390/en10040464
Source: FindIt
Source ID: 2357515619
Research output: Contribution to journal › Journal article – Annual report year: 2017 › Research › peer-review